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12/23/2006

Antony Course

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01/29/2010

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EXAMINER

D'AGOSTINO, PAUL ANTHONY

ART UNIT

PAPER NUMBER

3714

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DELIVERY MODE

01/29/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/599,801

Applicant(s)

COURSE, ANTONY

Examiner

Paul A. D'Agostino

Art Unit

3714

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

This responds to Applicant's Arguments/Remarks filed 08/19/2009. Claim 18 has been amended. Claims 1-17 stand cancelled. Claims 18-32 are now pending in this application.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/19/2009 has been entered.

Response to Amendment

2. This acknowledges Applicant's amendment to Claim 18 of "said means for player interaction not including a data inputting device" (Claim 18) and support provided as "a player provides input to the interactive game, which would otherwise be provided by a joystick or similar control device." (Abstract). Examiner believes Applicant had, at the time of filing, only possession of input other than by a joystick or similar conventional controllers commonly associated with types of video games such as would be used with console systems as the ones disclosed by Applicant (e.g., PLAYSTATION, GAMEBOY, and XBOX) wherein Applicant discloses "Existing games have joystick software which

enables developers to have game players use a joystick with software which talks to the sensors, tracks the ball's trajectory, and speed of the ball." (Specification Page 6).

Specification

3. The use of the trademarks PLAYSTATION, GAMEBOY, and XBOX (Page 6) has been noted in this application. Trademarks should be capitalized wherever they appear and be accompanied by the generic terminology. Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Objections

4. Claim 23 is objected to because of the following informalities: The claim recites "elastic members to a surface between said screen". The Specification recites "below said screen" and Fig. 3 indicates the elastic members are below the net screen, so amending to claim to read -- below -- is supported and makes more sense. Examiner recommends amending the claim to recite -- elastic members to a surface below said screen --. Appropriate correction is required.

5. Claim 24 is objected to because of the following informalities: The claim recites "between said ramping component and said surface". The Specification recites "It is further preferred that the lower edge of the net be connected to a ramping component between it and the surface." and Fig. 3 supports the Specification disclosure better than

the claim wording, so amending to claim to read – lower edge – is supported and makes more sense. Examiner recommends amending the claim to recite – between said lower edge and said surface --. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 18-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. A claim limitation will invoke 35 U.S.C. § 112, sixth paragraph, if it meets the following 3-prong analysis:

- a. The claim limitations must use the phrase “means for” or “step for”.
- b. The “means for” or “step for” must be modified by functional language; and
- c. The phrase “means for” or “step for” must not be modified by sufficient structure, material or acts for achieving the specified function.

8. Claims 18-32 invoke 35 U.S.C. 112, sixth paragraph, as they meet the 3-prong test above. The claims recite “means for” and is modified by functional language of player interaction, preventing, detecting, and reacting not modified by sufficient structure; therefore the following claim limitations are being treated as invoking 35 U.S.C. § 112, sixth paragraph.

9. Claim 18 recites “means for player interaction” in which Examiner finds support in Applicant disclosure for a “cage type area” (Fig. 1 and Specification Page 5) wherein the

cage type area means does not include a joystick or similar conventional controller input means (Abstract, See also Response to Amendment of this Office Action); "means for preventing" in which Examiner finds support in the disclosure for a "net" (Fig. 3 and Specification Pages 2 and 5). However, there is no disclosure or insufficient disclosure of the structure, material, or acts for performing the:

a. "ball sensing means" in which Examiner finds partial support for in the disclosure for an array of infra red transmitters and receivers (Fig. 1 and Specification Page 2 and 4) but no support for the particulars of the software for processing the signals in combination with the "control box" (Specification Page 9); and the

b. "means for reacting" in which Applicant discloses that "The interactive ball game software continually waits for a ball to be kicked hit or thrown. Once it senses a valid shot it passes the electronic game position of the ball, the trajectory and speed. This is then linked into existing game graphics and ball behaviour algorithms to create images and hence from existing game content" (Specification Page 6).

No disclosure is made of the software or algorithms used to logically process the signals or match the ball trajectory data to an appropriate existing game graphic to create images responsive to the player's interaction as respectively claimed for each of the above means.

For a computer-implemented means-plus-function claim limitation, the written description must include the algorithm that transforms the computer-implemented structures into the special purpose device programmed to perform the disclosed algorithm that performs the claimed function. Applicant may express the

algorithm in any understandable terms including as a mathematical formula, in prose, in a flow chart, or in any other that provides sufficient structure (See MPEP 2181). Here, Applicant fails to disclose any details of the software programming or algorithms used either in prose or in the drawings to satisfy the requirements of 35 U.S.C. § 112, second paragraph. Further, it remains insufficient even when one of ordinary skill in the art is capable of writing the software or algorithms to fail to disclose the substance which performs the claimed invention.

Applicant is required to:

(a) amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or

(b) amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If Applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function, Applicant is required to clarify the record by either:

(a) amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)); or

(b) stating on the record what the corresponding structure, material, or acts,

which are implicitly or inherently set forth in the written description of the specification, perform the claimed function.

For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181. Appropriate attention is required.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 18-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,846,139 to Bair et al. (Bair) of record in view of U.S. Patent No. 4,556,219 to Tillery (Tillery).

In Reference to Claim 18 and 21-31

Bair discloses an interactive ball game (Fig. 1) using software for playing an

existing computerized ball game, comprising:

a ball (Fig. 1 "golf ball" 24);

a housing (Fig. 1 "housing" 12);

a screen upon which said interactive ball game is displayed (Fig. 1 "screen" 26), said screen acting as a target for said ball ("screen is made of shock absorbing material that is suitable both for stopping a golf ball, and for functioning as a substrate on which a video image can be projected" Col. 5 Lines 18-20. Bair displays in Fig. 1 a target of the golf green, flag and hole.);

means for player interaction with said ball for permitting a player to strike said ball and directing motion of said ball toward said screen for simulating player participation in said interactive game (Fig. 1 "tee area" 20 and cage type rectangular structure "enclosure" 14 Col. 5 Lines 6-15 housing arrays of Fig. 2) wherein said means for player interaction not including a data inputting device such as a joystick or conventional input device as used in gaming consoles (Bair discloses input via the flight of a projectile e.g., the ball, passing through an array of IR sensors, hence player input is not provided via a joystick or via conventional console input means);

ball sensing means for detecting motion of said ball as said ball passes through said ball sensing means, said ball sensing means including software for determining trajectory of said ball and the player's level of success in said interactive ball game relative to said target {ball sensing means being an array of sensors with each array being separated from each other by a predetermined distance and wherein the array of sensors includes a rectangular frame having individual infrared transmitters and

receiver sensors located on an inner surface of said rectangular frame} (Figs. 1 and 2 "arrays" 50, 51, and 52 separated by a pre-determined distance; also, Col. 5 Lines 55-64 wherein on the inner surface of rectangular frame poles 58-70 are electromagnetic radiation receivers 54 which detect infrared radiation and generate signals in response to the ball breaking the plane Col. 5 Lines 55-64; with respect to Claim 31 the ball sensing means need only be "capable of" sensing passage of the ball in a plurality of planes. Applicant should amend the claim to positively recite a sensing means that is "designed to" or "configured to" sense passage of the ball. Nonetheless, Bair performs this operation via the array of sensors 50, 51, and 52 of Fig. 1); and

means for reacting by said interactive ball game to the trajectory of said ball and the player's level of success, as determined by said ball sensing means, for permitting said interactive ball game to challenge, or compete against, an effort by the player to win (Bair discloses that the influence of gravity is considered as it affects the velocity (Col. 21 Lines 54-62) and of known prior art which "incorporates software which takes into account the influence of obstacles such as trees, slope, wind, and the like on the travel path of the ball" (Col. 2 Lines 25-28) such that the final resting place of the ball can be predicted more accurately (Col. 2 Lines 40-45) and presented wherein the projector produces a video image of the projectile as it would have traveled through the playing area (Col. 2 Lines 52-54); In light of Applicant's disclosure, if the sport were football, for example, reactive elements such as weather and opposing players would be shown. Since this is golf, Examiner reasonably interprets the claim more broadly but as reasonably than in past Office Actions to deem wind, gravity, slope contributions to

the trajectory and final position of the ball as disclosed by Bair to be with the scope of Applicant's claimed invention).

Bair discloses a screen made of shock-absorbing material (Col. 5 Lines 16-23) suitable for stopping the golf ball by absorbing energy in the z-axis direction "so the golfer does not have to dodge the ball as it rebounds off the screen." (Col. 22 Lines 39-47). However, Bair is silent on a housing of see-through mesh material; means for preventing the ball via a translucent net or mesh from hitting the screen; and wherein a net has a lower edge, adjacent with a lower edge of said screen, with an elongate member attached thereto via elastic members to a surface between {below} said screen and further comprising a ramping component, wherein said lower edge of said net is connected to said ramping component between said ramping component and said surface.

Tillery teaches of a mesh golf practice cage (Title) wherein the walls of the golfing cage (Fig. 1 and "golf practice cage"; Col. 2 Lines 28-40) are see-through netting (Fig. 1 and "common netting" Col. 2 Lines 41-47) wherein "struck golf balls do not hit the rear 18 of the cage" (Col. 3 Lines 67-68 and Fig. 5 wherein rebound nets 54 prevent a ball from hitting the rear 18 Col. 2 Lines 56-59 and Col. 4 Lines 17-25); and wherein a net has a lower edge, adjacent with a lower edge of said screen, with an elongate member attached thereto via elastic members to a surface between {below} said screen (Fig. 5 rebound nets 54 have a lower edge adjacent to (reasonably interpreted to mean near) the lower edge of rear 18 (Fig. 5); with an elongate member comprising excess length of rebound net 54 laying atop the sloped surface 22, the excess length which

acts as a weighted elongate member attached to the lower edge of the vertical rebound net 54; Regarding the limitation "via elastic members to a surface between said screen", recall Examiner has made a claim objection that the claim should recite below the screen (See Claim Objections) and further Applicant discloses "or similar extensible members" making the elastic aspects a non-critical feature (Specification page 5) as long as "The resilience of the elastic members 53 acts to cushion the shock of the ball on the net" (Specification page 5). Examiner also interprets the claim to disclose that the surface is the ground which is below the screen. Thus, giving the claim the broadest reasonable interpretation in light of the Specification, Tillery discloses extensible frame elements in the form of a fixed length of frame elements 42 in combination with fittings 46 (Fig. 3) and pivotal fittings 48 (Fig. 4) to establish the height of the cage and slope of the floor making the cage "adjustable" (Col. 3 Lines 19-30 and Col. 3 Lines 31-44) wherein part of the frame member 42 is below the rear 18 resting on a ground surface (Fig. 1); the frame members and fittings support the net cage which in turn support impact shock from hit balls, thus the extensible frame members serve to cushion the shock of the ball on the net); and wherein comprising a ramping component (Fig. 1 sloped carpeted floor 22 and see Col. 5 Lines 1-17; Col. 3 Lines 31-44 and Col. 4 Lines 17-25) wherein said lower edge of said net is connected to the ramping component (Figs. 1 and 5 wherein the excess rebounding net 54 is movably connected to the sloped floor by the force of gravity) between the ramping component and said surface (See Claim Objections wherein examiner reasonably interprets this to mean that the ramping component is located between the bottom of the net and above the surface

of the ground wherein the ramping component is connected between the lower edge of the net and the ground surface.). Tillery provides this system to make "it possible for a golfer to practice without fear of being struck by rebounding golf balls" (Col. 2 Lines 41-47 and "prevent dangerous rebounds: Col. 4 Lines 8-9) and with a sloped floor "so balls can easily roll to the ball collection section" (Col. 1 Lines 45-51).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the rebound net stopping a ball from hitting the rear of the cage and sloped floor to return balls as taught by Tillery into the inventions of Bair in order to prevent dangerous rebounds from the walls in all directions (not just the z-axis) so the player doesn't have to dodge shots that do not reach or miss the shock-absorbing wall and to provide for a ball return for the convenience of the player.

In Reference to Claims 19-20

Bair as modified by Tillery wherein the screen is static (Fig. 1 the screen 26 is a static white screen fixed to closed end 18 (Col. 5 Lines 5-23; the image on the screen is also static wherein images of golf course are projected onto the screen to project an image of a portion of a golf course (Col. 3 Lines 10-17)); and wherein the screen is an interactive video display responsive to characteristics of a particular game (Fig. 1 wherein the screen displays images of the golf course with images of the ball as it would have traveled along a computer trajectory down the golf course if it would have flown into the scene depicted on the screen (Col. 3 Lines 17-21)).

13. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bair in view of Tillery further in view of U.S. Patent No. 5,626,531 to Little (Little).

Bair as modified by Tillery discloses a system substantially equivalent to Applicant's claimed invention wherein Bair discloses a housing (Fig. 1 "housing" 12) in which said interactive ball game is enclosed. However, Bair as modified by Tillery is silent wherein an alarm for ensuring that said ball does not leave said housing without a player obtaining authorized access to remove said ball from said housing.

Little teaches of a golf balls with electronic tags which when detected activate an alarm of one form or another (Col. 1 Lines 15-30) located at a gate 52 or an exit to a hut 56 wherein an audible warning device 59 when someone is leaving the facility with the golf ball (Fig. 6 and Col. 3 Lines 43-52). Little provides this system in order to tag golf balls and other forms of equipment (e.g., baseballs) "to enable the establishment of undisputed ownership thereof" (Col. 4 Lines 1-4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the tags and exit alarm as taught by Little into the cage exit and golf practice area of Bair as modified by Tillery in order to enable the establishment to undisputed ownership thereof of the house or range balls from leaving the facility without permission by the player.

14. Previously, Claims 18-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bair in view of Tillery. In so doing, Examiner reads Bair as having means for reacting. If Applicant disagrees with Examiner's interpretation of Bair then

Examiner also rejects Claims 18-31 as being unpatentable over Bair in view of Tillery further view of U.S. Patent No. 6,308,565 to French et al. (French) of record. Examiner is not backing away from his reasonable belief that Bair's addition of accounting for the effects of gravity and wind (if the ball travel distance were longer) is a reactive means but placing French on the record to show that reactive means take many forms depending on the nature of the game played. Again, French provides input with means other than a joystick or conventional input devices.

Bair as modified by Tillery discloses a system substantially equivalent to Applicant's claimed invention wherein Bair also discloses a means for reacting. However, if Applicant disagrees, French discloses a means for reacting by said interactive ball game to the trajectory of said ball and the player's level of success, as determined by said ball sensing means, for permitting said interactive ball game to challenge, or compete against, an effort by the player to win.

French teaches of system and method of tracking and assessing movement skills (Title) wherein "Valid testing and training of sport-specific skills requires that a player be challenged by unplanned cues which prompt player movement over distances and directions representative of actual game play" (Col. 1 Lines 43-55 and Col. 1 Lines 62-67 and Col. 2 Lines 1-7) such that a means for reacting is provided to challenge, or compete against, an effort by the player to win ("These dynamic cues necessitate constant real time changes in the player's movement path and velocity..." Col. 3 Lines 55-61 wherein as in Fig. 2 a player 36 is faced with a protagonist icon 34 at a protagonist virtual location in virtual space (Col. 9 Lines 1-7). French provides this

system and method without the use of a joystick or convention input devices typically associated with game consoles. French discloses input via optical sensors 14 and 16 which interact with a passive or active reflector or beacon 38 worn on the player Figs. 1 and 2 and Col. 9 Lines 25-51). French discloses that the player can practice e.g., passing routes in football (Col. 30 Lines 23-33) such that the on screen reactive avatar moves in ways to test the players skills and agility (Fig. 17 and Col. 30 Lines 34-51) and provides this system and method in order to subject a player to a type and frequency of sport-specific dynamic cues requisite to creating an accurate analog of actual sports competition ..." (Col. 3 Lines 40-44).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the reactive display of an opponent and dynamic cues as taught by French into the teachings of Bair as modified by Tillery in order to subject a player to a type and frequency of sport-specific dynamic cues requisite to creating an accurate analog of actual sports competition. In the context of golf (vs. football but also contemplated by French ("Golf Swing Analysis" Col. 4 Lines 14-15), Examiner maintains that the challenge to compete against as claimed is a hazzard or weather condition or a bunker, any of which are presented to the player and reactions assessed by the game while the player is striving to score on each hole.

15. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bair in view of Tillery further in view of French and U.S. Patent No. 5,626,531 to Little (Little).

Bair as modified by Tillery and French discloses a system substantially equivalent to Applicant's claimed invention wherein Bair discloses a housing (Fig. 1 "housing" 12) in which said interactive ball game is enclosed. However, Bair as modified by Tillery and French is silent wherein an alarm for ensuring that said ball does not leave said housing without a player obtaining authorized access to remove said ball from said housing.

Little teaches of a golf balls with electronic tags which when detected activate an alarm of one form or another (Col. 1 Lines 15-30) located at a gate 52 or an exit to a hut 56 wherein an audible warning device 59 when someone is leaving the facility with the golf ball (Fig. 6 and Col. 3 Lines 43-52). Little provides this system in order to tag golf balls and other forms of equipment (e.g., baseballs) "to enable the establishment of undisputed ownership thereof" (Col. 4 Lines 1-4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the tags and exit alarm as taught by Little into the cage exit and golf practice area of Bair as modified by Tillery and French in order to enable the establishment to undisputed ownership thereof of the house or range balls from leaving the facility without permission by the player.

16. Not intending to be cumulative but for providing further perspective on the claim breadth for reacting means in a manner not requiring a joystick as highlighted by Applicant as a point of distinction, Claims 18-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bair in view of Tillery and U.S. Patent No. 5,882,204 to

Iannazo et al. (Iannazo). As distinguished from French, Iannazo provides more explicit examples of embodiments of reactive means in conjunction with a detected sports projectile (ball) and trajectory integrated into the simulated visual display also showing opponents in a manner not utilizing a joystick or conventional means associated with a console. Here the ball (projectile) delivers the input.

Bair as modified by Tillery discloses a system substantially equivalent to Applicant's claimed invention wherein Bair also discloses a means for reacting. However, if Applicant disagrees, Iannazo discloses known IR golf simulation training systems (Col. 1 Lines 12-27) and discloses additional enhancements to accommodate additional flight characteristics for football and provides a means for reacting by said interactive ball game to the trajectory of said ball and the player's level of success, as determined by said ball sensing means, for permitting said interactive ball game to challenge, or compete against, an effort by the player to win.

Iannazo teaches of system and method of detecting the motion of a football via sensors and displaying "reactions of the simulated down field players" as would be seen by the player throwing the football wherein the data processing of the system projects the trajectory of the ball into the simulated playing area and subsequent reactions of the simulated down field players to the trajectory of the ball (Col. 2 Lines 1-14). Iannazo provides this system and method to show the "result of the play" (Col. 2 Lines 20-25) in order to help players "learn how the simulated defensive backs and receivers responded" Col. 10 Lines 34-37) by showing them "realistic images of simulated down

field players so that a quarterback can practice reading defenses against which he will later actually play" (Col. 12 Lines 1-5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the means for reacting as taught by Iannazo into the teachings of Bair as modified by Tillery in order to provide a realistic simulation of showing players the result of a move or play when the ball is simulated along its trajectory into a simulated play. In the context of golf, Bair teaches of integrating the simulated flight of the ball along its trajectory (Col. 3 Lines 17-21) and displaying the effect of conditions occurring on the golf course such as down fairway hazards, weather, and bunkers and their affect on the path of the ball and then depicting that on the display screen.

17. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bair in view of Tillery further in view of Iannazo and U.S. Patent No. 5,626,531 to Little (Little).

Bair as modified by Tillery and Iannazo discloses a system substantially equivalent to Applicant's claimed invention wherein Bair discloses a housing (Fig. 1 "housing" 12) in which said interactive ball game is enclosed. However, Bair as modified by Tillery and Iannazo is silent wherein an alarm for ensuring that said ball does not leave said housing without a player obtaining authorized access to remove said ball from said housing.

Little teaches of a golf balls with electronic tags which when detected activate an alarm of one form or another (Col. 1 Lines 15-30) located at a gate 52 or an exit to a hut

56 wherein an audible warning device 59 when someone is leaving the facility with the golf ball (Fig. 6 and Col. 3 Lines 43-52). Little provides this system in order to tag golf balls and other forms of equipment (e.g., baseballs) "to enable the establishment of undisputed ownership thereof" (Col. 4 Lines 1-4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the tags and exit alarm as taught by Little into the cage exit and golf practice area of Bair as modified by Tillery and Iannazo in order to enable the establishment to undisputed ownership thereof of the house or range balls from leaving the facility without permission by the player.

Response to Arguments

18. Applicant's arguments with respect to Claims 18-32 have been considered but are moot in view of the new ground(s) of rejection. Additionally, Applicant has amended to introduce (see Applicant's Arguments/Remarks pages 6-7) that the means for player interaction does not include a data inputting device. Examiner concurs but limits Applicant's claim to a joystick or similar input device used in conjunction with gaming consoles. Examiner reasonably concludes that this is all Applicant had possession of at the time of filing. Applicant also argues (see Applicant's Arguments/Remarks pages 8) that French is not prior art. Examiner respectfully disagrees and as explained as part of the rejection of the claims, French provides input in a manner not requiring a joy stick or in a manner similar to conventional gaming consoles. French uses an optical system and reflectors worn on the player. Applicant argues (see Applicant's

Arguments/Remarks pages 9-10) that there is no counter or opposing action taken in the art of Bair or Curshod (no longer relied upon). Examiner respectfully disagrees and has reversed his position from the prior Office Action. Bair indeed discloses a counter or opposition reacting to the flight of the golf ball as explained as part of the rejection of the claims. Applicant argues that the golf course does not try to "block the hole" in the way Applicant has claimed his invention. Examiner respectfully disagrees. There is no hole blocking opposition in golf. The appropriate parallel would be the existence of hazards, weather, gravity, bunkers, course difficulty of which Examiner has provided prior art teachings to this effect as part of the rejection of the claims. Applicant argues (see Applicant's Arguments/Remarks pages 10-11) that French teaches the simulation is reacting not to a human player's movements but to a player operating a joystick. Examiner respectfully disagrees and has provided citations in French on the use of optical input based on human movements using reflectors and there is interaction as described in French Fig. 17.

19. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Here, Examiner has provided proper motivation to combine the references

reflecting knowledge which was within the level of ordinary skill at the time of Applicant's claimed invention. Thus, the rejection of Claims 18-32 is maintained.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure is provided in the Notice of References Cited.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. D'Agostino whose telephone number is (571) 270-1992. The examiner can normally be reached on Monday - Friday, 7:30 a.m. - 5:00 p.m..

22. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dmitry Suhol can be reached on (571) 272-4430. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

23. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Paul A. D'Agostino/
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